

USSR

UDC 548.4

NOVIKOVA, I. G., LUBENETS, S. V., and STARTSEV, V. I., Physico Technical Institute of Low Temperatures, Academy of Sciences UkrSSR

"Study of the Microstructure of KCl Alkali-Halide Single Crystals by Lang's Method"

Kiev, Metallofizika, No 31, 1970, pp 132-139

Translation: It is shown that x-ray diffraction topography as applied to KCl alkali-halide single crystals without impurity and alloyed barium and lead cations can give important information on the dislocation structure in the volume of a specimen. The boundaries of low-angle blocks oriented toward the observation surface in various ways and dislocation networks embedded in the volume of and within the blocks were detected by the Lang method. Individual cases of a good contrast on individual dislocations, the effect of the thickness of a crystal on the image contrast of the imperfections during a change of λ in the interval 0.35-2.7, and a change in contrast in the points of intersection of orthogonal slip lines were revealed. The characteristics of the microstructure disclosed by x-ray diffraction topography were compared with the data obtained by means of etching, by the polarization optical method, and during observation in an ultramicroscope. Bibliography: 14 entries, 5 illustrations. 1/1

USSR

UDC 613(075.8)

ZIL'BER, D. A., (DECEASED), LOGINOVA, R. A., ~~NOVIKOVA, I. M.~~, OLEKHNOVICH,
A. I., OSTROVSKIY, M. M., and RAZUMOVSKIY, M. D.,

Gigiyena (Hygiene), Moscow, "Meditsina," 1970, 384 pp

Translation: Annotation: This textbook has been compiled for students of pharmaceutical institutes and pharmaceutical faculties of medical institutes in accordance with the hygiene teaching program. It contains materials corresponding to the nature of their future work. Such materials concern problems of hygiene in pharmacies, labor hygiene in galenical and chemicopharmaceutical enterprises, foundations of epidemiology and organization of antiepidemic measures, and sanitary education.

The indicated subjects are completely lacking in hygiene textbooks issued for students of therapeutic, sanitary, and other faculties of medical institutes.

Some facets of general hygiene are elucidated also in this textbook without which it is impossible for students to learn certain hygienic problems which are specific for them as future specialist pharmacists.

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ZIL'BER, D. A., et al., Gigiyea, Moscow, "Meditsina," 1970, 384 pp

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USSR

UDC 543.43:632.95.024

NOVIKOVA, K. F., and MEL'TSER, F. R., All Union Scientific Research Institute of Chemical Agents for Plant Protection

"Colorimetric Method for the Determination of Microquantities of DDVP in Milk and Water"

Moscow, Khimiya v Sel'skom Khozyaystve, Vol 11, No 8 (118), 1973, pp 47-49

Abstract: A colorimetric method has been developed for the determination of DDVP (0,0-dimethyl 0,2,2-dichlorovinyl phosphate) in milk and water, based on the extraction of the insecticide from water by methylene chloride and from milk by petroleum ether, after treatment with acetone, followed by spectrophotometric determination at λ 487 m μ of the dichloroacetaldehyde condensation product obtained as a result of alkaline hydrolysis with resorcinol. The sensitivity of the method is 0.1 mg/l of milk and 0.04 mg/l of water.

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USSR

UDC 543/545 + 632.951.3

NOVIKOVA, K. F.

"Determination of Residual Quantities of Chloro- and Organophosphorus Pesticides in Food Products, in Soil, and in Water"

Moscow, Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva imeni D. I. Mendeleev, Vol 18, No 5, 1973, pp 562-570

Abstract: A review with 209 references devoted to the analytical methods for residual quantities of chloro- and phosphorusorganic pesticides in food, soil and water. The review covers methods for extraction of these pesticides from specimens being analysed, purification methods for these extracts, identification of individual substances and finally of their determination.

1/1

UDC 632.95

USSR

MEL'TSER, F. R., NOVIKOVA, K. F.

"New Specific Colorimetric Method of Analyzing Residual Amounts of Phosalone in Plants"

Tr. 2-go Vses. soveshch. no issled. ostatkov pestitsidov i profilakt. zagrvaz-
neniya imi produktov pitaniya, kormov i vnesh. sredy (Works of the Second All-
Union Conference on the Investigation of Pesticide Residues and Preventive
Contamination of Food Products, Feeds and Environment), Tallin, 1971, pp
295-299 (from RZh-Khimiya, No 12, Jun 72, Abstract No 12N446)

Translation: Phosalone (I) is extracted from fruits with acetone; it is re-
extracted with CHCl_3 , the extract is evaporated and I is sublimed at $85-90^\circ$
0.4-0.5 for 30 minutes. The sublimed I is dissolved in acetone, hydrolyzed
by NaOH to 5-Cl-2-NH₂C₆H₃OH (II) and the coupling product of diazotized II with
resorcinol is analyzed spectrophotometrically at 490 nm. The sensitivity of
the method is 0.1 mg/kg; the degree of detection of I is $90.1 \pm 12.4\%$.

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UDC 632.95

USSR

LESHINSKAYA, L. I., NOVIKOVA, K. F.

"Separational Analysis of Residual Amounts of Methylnitrophos Isomers in Apples and Water by the Colorimetric Method"

Tr. 2-go Vses. soveshch. po issled. ostatkov pestitsidov i profilakt. zagryazneniya imi produktov pitaniya, kormov i vnesh. sredy (Works of the Second All-Union Conference on the Investigation of Pesticide Residues and Preventive Contamination of Food Products, Fodder and Environment), Tallin, 1971, pp 290-294 (from RZh-Khimiya, No 12, Jun 72, Abstract No 12N433)

Translation: It was demonstrated that when analyzing the methylnitrophos (I) residues in apples for a sanitary-hygienic evaluation of their quality it is possible to use the colorimetric analysis of I with respect to the sum of the isomers. For correct analysis of I in water, the isomers of I must be analyzed separately.

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USSR

UDC 632.95

NOVIKOVA, K. F., and LOBANOVA, I. V.

"Colorimetric Method of Determining Propanide and Its Toxic Metabolite
3,4-Dichloroaniline in Rice"

V sb. Khim. sredstva zashchity rast. (Chemical Agents for Plant Protection --
collection of works), vyp 1, Moscow, 1970, pp 163-166 (from RZh-Khimiya, No 11,
Jun 72, Abstract No 11N453)

Translation: Propanide (I) and 3,4-dichloroaniline (II) are extracted from
rice with n-hexane, re-extracted with KOH-water mixture (1:2), and I is
extracted again with CHCl_3 . The methanol phase is diluted with water, NaCl
is added, and II is extracted with CHCl_3 . The extracts are evaporated, I
is hydrolyzed with HCl, and both components are determined colorimetrically
in the form of a coupling product of diazotized II with α -naphthol. The
sensitivity of the method is 0.4 mg/kg of I and II.

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UDC 632.95

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NOVIKOVA, K. F., and MEL'TSER, F. R.

"Chromatophotometric Determination of Residual Quantities of Phthalophos and Phozalone in Foodstuffs of Vegetative Origin"

V sb. Khim. sredstva zashchity rast. (Chemical Agents for Plant Protection -- collection of works), vyp 1, Moscow, 1970, pp 86-94 (From FZh-Khimiya, No 11, Jun 72, Abstract No 11N408)

Translation: In order to determine residues of phthalophos (I) and phozalone (II) in foodstuffs derived from plants, I and II are extracted with acetone, re-extracted with CHCl_3 , the extract is clarified on a layer of silica gel (13 x 18 cm), washing I and II with acetone. After removing the solvent, I or II is hydrolyzed with HCl , and the liberated HCHO is determined colorimetrically or spectrophotometrically at 570 nm in the form of a product of combination with chromotropic acid. The sensitivity of the method is 0.3 mg/kg.

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UDC 632.95

USSR

PIVOVAROV, G. A., and ~~NOVIKOVA, K. F.~~

"Determination of Residual Quantities of Metaphos in Products of Vegetable Origin and Water by Gas-Liquid Chromatography Method"

Tr. 2-go Vses. soveshch. po issled. ostatkov pestitsidov i profilakt. zagryazneniya imi produktov pitaniya, Kormov i vnesh. sredy (Transaction of the Second All-Union Conference on the Study of Pesticide Residues and Prevention of Their Contamination of Food Products, Fodder and the External Environment), Tallinn, 1971, pp 85-88 (from RZh-Khimiya, No 13, 10 Jul 72, Abstract No 13N476 by T. A. Belyayeva)

Translation: One-hundred milliliters of acetone are poured over a 50 g vegetable sample, shaken for 15 min. and the extract is filtered. The operation is repeated twice. The extract is boiled down to a volume of 15-20 ml, passed through an N4 porous filter, stirred with a double volume of distilled water and 20 ml hexane for 1-1.5 min. The acetone-aqueous solution is extracted with 4 x 20 ml hexane. The extracts are combined, dried over Na_2SO_4 , passed through an N1 porous filter, boiled down, and 5 ml of hexane is added to the residue. Five microliters of the solution are introduced into 1/2

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PIVOVAROV, G. A., et al., Tr. 2-go Vses. soveshch. po issled. ostatkov
pestitsidov i profilakt. zagryazneniya imi produktov pitaniya, kormov i
vnesh. sredy, Tallinn, 1971, pp 85-88

the evaporator of the chromatograph. The GLC method is used with an electron-
capture and thermionic detector. Columns are identical, with 5% methyl-
silicone on chromosorb W (100-120 mesh), temperature 170°. Carrier gas
N₂. Sensitivity of method for vegetable sample 0.02 mg/kg, for water 0.01
mg/l.

USSR

UDC 543.544:632.951

MEL'TSER, F. R., NOVIKOVA, K. F., All-Union Scientific Research
Institute of Chemical Agents for Plant Protection

"Chromatophotometric Method of Determining Residual Quantities of
Phosalon in Fruit and Vegetable Products"

Moscow, Khimiya v Sel'skom Khozyaystve, Vol 8, No 9 (83), Sep 70,
pp 40-42

Abstract: Phosalon is a new organophosphorus insecticide of comparatively low toxicity for warm-blooded animals. This chemical is based on O,O-diethyl-S-(6-chlorobenzoxazolinyl-3-methyl)-dithiophosphate, and is a promising substitute for DDT in combatting aphids, the lesser apple worm, grape pests, mites and other insects. The authors of this article describe a chromatophotometric method which they have developed for determining phosalon in apples, pears and grapes. The method is based on acetone extraction of phosalon residues with subsequent redistribution from the acetone:water system (1:2) into chloroform, chromatographic separation, and identification on a thin layer of silica gel. After acetone elution of the

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USSR

MEL'TSER, F. R., and NOVIKOVA, K. F., [REDACTED] Khimiya v Sel'skom Khozyystve, Vol 8, No 9 (83), Sep 70, pp 40-42

of the insecticide from the sorbent layer, the product formed by combination of the formaldehyde isolated during acid hydrolysis of the phosalon with chromotropic acid is photometrically determined. The method has a sensitivity of 0.3-0.5 mg/kg (6 μ g in the sample).

2/2

1/2 012 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--FORMATION OF COKE IN STATIONARY AND FLUIDIZED BEDS OF AN ALUMINA,
CHROMIA, POTASSIA CATALYST DURING N HEPTANE DEHYDROCYCLIZATION -U-
AUTHOR--(05)-NEVICOVA, L.A., IVANOVA, N.G., ROZENGART, M.I., KONONOV, N.F.,
MEDVEDOVSKAYA, I.I.
COUNTRY OF INFO--USSR

SOURCE--NEFTEKHIMIYA 1970, 10(1), 37-41.

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--COKE, FLUIDIZED BED, ALUMINA, CHROMIUM OXIDE, POTASSIUM OXIDE,
CATALYST ACTIVITY, CYCLIZATION, HEPTANE, AROMATIC HYDROCARBON/(U)KA237
CATALYST

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/2101

STEP NO--UR/0204/70/010/001/0037/0041

CIRC ACCESSION NO--AP0125685

UNCLASSIFIED

2/2 012

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0125685

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. INCREASED COKE FORMATION DUE TO INCREASED CONTACT TIME AND TEMP. IN A STATIONARY BED OF 2.9 TIMES 2.2 MM PARTICLES OF AL,Cr,K OXIDE CATALYST KA,237 WAS ABOUT THE SAME AS THAT IN A FLUIDIZED BED OF 63-84 MU PARTICLES OF THE SAME CATALYST DURING DEHYDROCYCLIZATION OF N HEPTANE (I) AT 510-40 AND 510-50 DEGREES, RESP., BUT THE INCREASE WAS NONLINEAR IN THE CASE OF THE STATIONARY CATALYST LAYER. COKE DEPOSITS DECREASED MONOTONICALLY THROUGH THE LATTER BUT WERE EVENLY DISTRIBUTED IN THE FLUIDIZED BED. AT 510 DEGREES AND AN INPUT RATE OF SIMILAR TO 0.5 HR PRIMENEGATIVE1 WHEN THE COKE YIELD WAS 1.2 PERCENT, AROMATIC HYDROCARBON YIELDS INCREASED FROM 41.9 TO 63.2 AND 55.1 PERCENT AS THE LENGTH OF THE RUN WAS RAISED FROM 1 TO 2 AND 3 HR, BUT WHEN A HEPTANE FRACTION (31.4 PERCENT N HEPTANE, 46.4 PERCENT OTHER ALKANES, 21.2 PERCENT ISOHEPTANES, 17.2 PERCENT NAPHTHENES, AND 5 PERCENT AROMATIC HYDROCARBONS) WAS SUBSTITUTED AND THE COKE YIELD WAS 5.1 PERCENT, AROMATIC HYDROCARBON YIELDS DECREASED FROM 24.9 TO 18.5 AND 15.6 PERCENT. AT 548 DEGREES, WHEN COKE YIELDS WERE 1.9 AND 8.6 PERCENT, AROMATIC HYDROCARBON YIELDS FROM RUNS OF THE RESP. LENGTHS WERE 69.9, 69.0, AND 70.5 PERCENT FOR I AND 44.9, 33.9, AND 18.0 FOR THE HEPTANE FRACTION. REDUCED CATALYTIC ACTIVITY WAS MARKED ONLY FOR A COKE CONTENT IS GREATER THAN OR EQUAL TO 8 PERCENT. FACILITY: INST. ORG. KHIM. IM. ZELINSKOGO, MOSCOW, USSR.

UNCLASSIFIED

1/2 028
TITLE--PHOTOGENERATION OF CURRENT CARRIERS IN CRYSTALLINE TETRACENE IN A
MAGNETIC FIELD -U-
AUTHOR--(03)--YAKOVLEV, B.S., NOVIKOVA, L.I., FRANKOVICH, YE.L.
COUNTRY OF INFO--USSR
SOURCE--ZHURNAL EKSPERIMENTAL'NOY I TEORETICHESKOY FIZIKI, 1970, VOL 58,
NR 5, PP 1574-1579
DATE PUBLISHED-----70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--MAGNETIC FIELD, PHOTOCONDUCTIVITY, FLUORESCENCE, BENZENE
DERIVATIVE, SURFACE FILM, ORGANIC CRYSTAL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3002/0024

STEP NO--UR/0056/70/058/005/1574/1579

CIRC ACCESSION NO--AP0127674

UNCLASSIFIED

2/2 028

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0127674

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF A MAGNETIC FIELD ON THE PHOTOCONDUCTIVITY OF A TETRACENE FILM IS INVESTIGATED. BY COMPARING THE RESULTS WITH DATA FROM THE LITERATURE ON THE EFFECT OF A MAGNETIC FIELD ON TETRACENE FLUORESCENCE, IT IS DEMONSTRATED THAT THE EFFECT OF THE MAGNETIC FIELD ON PHOTOCURRENT IS DUE TO AT LEAST TWO DIFFERENT PROCESSES. ONE PROCESS IS DUE TO THE FACT WANNIER TYPE EXCITONS PARTICIPATE IN GENERATION OF CURRENT CARRIERS. WITH DECREASE OF TEMPERATURE THE CONTRIBUTION OF THE FIRST PROCESS OF VARIATION OF PHOTOCURRENT IN THE MAGNETIC FIELD DECREASES WHEREAS THE CONTRIBUTION OF THE SECOND PROCESS INCREASES. FACILITY: INSTITUT KHIMICHESKOY FIZIKI, AKADEMII NAUK SSSR.

UNCLASSIFIED

UDC 621.371.029.55

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USSR

VSEKHOSVIATSKAYA, I. S., GLADYSHEVA, M. V., GORSHKOVA, E. Z.,
DUMBRAVA, Z. F., YEROFEEV, N. M., ZOLOTAREV, A. Ye., KIYANOVSKIY,
M. P., MAL'SHAKOV, V. N., NOVIKOVA, I. N., PEZHEMSKAYA, M. D.,
PODDEL'SKIY, N. P., and RUDYKA, L. V.

"Some Results of Investigations Into Tilted Short-Pulse Sounding
in Ranges up to 400 km Long"

Moscow, V sb. X Vses. konf. po rasprostr. radiovoln. Tezisy dokl.
Sekts. 1 (Tenth All-Union Conference on the Propagation of Radio
Waves; Report Theses; Section 1--collection of works) "Nauka,"
1972, pp 347-348 (from RZh--Radiotekhnika, No 10, 1972, Abstract
No 10A333)

Translation: Results are given of the selection of optimal operat-
ing frequencies for ranges of varying extent, the identification
of propaganda modes, and the determination of the spectral char-
acteristics of the fluctuations in signal level. A. L.

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1/2 020 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--EFFECT OF TEMPERATURE ON THE RATE OF LEAD DISCHARGE FROM TRILONATE
ELECTROLYTES IN THE PRESENCE OF VARIOUS ANIONS -U-
AUTHOR-(03)-GALINKER, V.S., KUDRA, O.K., NOVIKOVA, L.S.

COUNTRY OF INFO--USSR

SOURCE--UKR. KHIM. ZH. 1970, 36(2), 150-4

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ELECTRODEPOSITION, LEAD, ELECTROLYTE, THERMAL EFFECT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1996/1935

STEP NO--UR/0073/70/036/002/0150/0154

CIRC ACCESSION NO--AP0118897

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--23OCT70

2/2 020

CIRC ACCESSION NO--AP0118897

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THE DEVIATION FROM STRAIGHT LINES IN THE CURRENT RECIPROCAL TEMP. GRAPHS (LOG I VS. 1-T) FOR THE RATE OF ELECTRODEPOSITION OF PB PRIME2 POSITIVE FROM PB-TRILON 9 COMPLEX CONTG. ELECTROLYTES IN THE PRESENCE OF OAC PRIME MINUS AND HALIDE IONS IS ATTRIBUTED TO THE BALANCE BETWEEN 2 EFFECTS, THE INCREASE IN ELECTRODE REACTION RATE EXPECTED AT HIGHER TEMP. DUE TO INCREASED RATE OF DIFFUSION AND INCREASED NO. OF IONS ABLE TO PENETRATE THE ENERGY BARRIER AND THE CHANGES IN THE NATURE OF THE ELECTRODE SURFACE WITH INCREASED TEMP. (CHANGE IN THE CONC. OF ADSORBED IONS). FOR SOLNS. CONTG. OAC PRIME MINUS, AT A P.D. OF 350 MV THERE IS A MAX. AT SIMILAR TO 45DEGREES. FOR THOSE CONTG. Cl PRIME MINUS THERE IS A MIN. AT 55DEGREES IN THE CURRENT RECIPROCAL TEMP. GRAPHS. THERE IS A BREAK IN THE VISCOSITY RECIPROCAL TEMP. GRAPHS AT SIMILAR TO 55DEGREES, BUT COND. DOES NOT CORRELATE WELL WITH VISCOSITY AT LOW CONCNS. OF PB PRIME2 POSITIVE.

FACILITY: KIEV. POLITEKH. INST., KIEV, USSR.

UNCLASSIFIED

USSR

UDC 621.762.001

GRISHINA, A. I., NOVIKOVA, I. V., RYADINSKAYA, I. M.

"Study of the Fine Structure of Specimens of Nickel Powder Produced by Impact Loading"

Metallovedeniye i Prochnost' Materialov, T. 3 [Metal Science and the Strength of Materials, Vol 3 -- Collection of Works], Volgograd, 1971, pp 309-314, (Translated from Referativnyy Zhurnal, Metallurgiya, No 5, 1972, Abstract No 5 G471 by S. Krivonosova).

Translation: An x-ray study is presented of specimens produced by impact loading. The level of strain hardening of various zones decreases upon transition from the surface to the center of the specimen. With impact loading, the temperature of the central portion of the specimen is increased significantly, leading to melting of the powder and full relief of strain hardening (increasing temperature resulting from intensity of plastic deformation of the powder). 4 Figures; 1 Biblio. Ref.

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USSR

UDC 621.762.001:669.27

TRET'YAKOV, V. I., PIVOVAROV, L. Kh., NOVIKOVA, M. B., LIDER, V. Ya.,
NOVIKOVA, T. A., VRZESHCH, Ye. Ya., and KARASEV, G. F.

"Influence of Surface Layer on Plates of Titanium-Tungsten Hard Alloys
on Wear Resistance During Cutting"

Sb. tr. Vses. n.-i. i proyekt. in-t tugoplavk. met. i tverd. splavov
[Collected Works of All-Union Scientific Research and Planning Institute
for Refractory Metals and Hard Alloys], No. 10, 1970, pp. 55-60
(Translated from Referativnyy Zhurnal-Metallurgiya, No. 2, 1971, Abstract
No. 2 G413 by the authors)

Translation: Results are described from determination of the resistance
factor to cutting of specimens of titanium-tungsten hard alloys, when
layers of altered composition and structure are formed on the cutting
edges with certain sintering modes. It is established that the presence
of surface layers on the cutting edges of the cutting plates increases
their wear resistance during cutting by an average of 1.6 times.
2 figures; 2 tables; 3 biblio. refs.

1/1

Radiobiology

USSR UDC 617-001.28-06:616.441-089.87)-092.9-089:616.419-089.843

CHERTKOV, I. L., Professor, NEMENOVA, N. M., Professor, NOVIKOVA, M. N.,
KOTLYAROV, A. M., MALANINA, V. N., UDALOV, G. A., ROGACHEVA, L. S., and
SHEPSHELEVICH, L. I., Laboratory of Myelo-Hemotherapy of Acute Radiation
Sickness, Pathological Anatomy Laboratory, and Cytological Laboratory,
Central Institute of Hematology and Blood Transfusion, USSR Ministry of
Health, Moscow

"Transplantation of Allogeneous Bone Marrow to Thymectomized Irradiated
Monkeys"

Moscow, Problemy Gematologii i Perelivaniya Krovi, Vol 16, No 3, Mar 71,
pp 45-53

Abstract: Since transplantation of allogeneous bone marrow to irradiated
animals for the purpose of alleviating radiation sickness gives rise to
a secondary disease due to differentiation of the transplanted tissue into
lymphocytes which enter into an immunological reaction with the host, a
study was performed in which thymectomized monkeys were irradiated with
800-1,000 r and then given allogeneous bone marrow transplants. The thymec-
tomy did not prevent the development of the secondary disease, but made it
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USSR

CHERTKOV, I. L., et al., Problemy Gematologii i Perelivaniya Krovi, Vol 16,
No 3, Mar 71, pp 45-53

considerably milder and promoted regeneration of hematopoiesis of the
donor type. Histological examinations indicated that bone marrow stem
cells play an important role in the development of the secondary disease.

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USSR

UDC 666.22:539.551

N 4

NEMILOV, S. V., KRYLOVA, L. A., ROMANOVA, N. V., ZHUKOVA, A. N., ALEKSEYEVA, R. A.,
NOVIKOVA, M. P., BESPAL'KO, Z. P., and TINYANKINA, A. N.

"Viscosity of Optical Glasses"

Leningrad, Zhurnal Prikladnoy Khimii, Vol 43, No 6, Jun 70, pp 1218-1225

Abstract: The viscosity η of 120 grades of glass ($\eta = 10^2 - 10^{13}$ poises) in relation to the temperature was determined. The results are listed in tables showing values of $\lg \eta$ for various temperatures t . The values included in the tables were obtained in part by interpolation and extrapolation of experimental values to cover the complete $\eta = 10^1 - 10^{16}$ poises range ($t = 312-2010^\circ$). Determinations at $10^4 - 10^{13}$ poises were carried out by the method of pressing in described earlier, those at $10^1 - 10^4$ poises by means of GOI automatic rotational viscosimeters. Measurements of η carried out by the first method on glass No 710 of the USA National Bureau of Standards led to results which coincided with those reported by A. Napolitano and E. G. Hawkins, J. Res. Nat. Bur. Stand., A. Phys. & Ch., 68A, 439, 1964. The rotational viscosimeters were calibrated at $10^2 - 10^4$ poises on the basis of values reported for glass No 710. Data obtained for B_2O_3 by means of these viscosimeters agreed with those reported in the literature. A glass with the composition SiO_2 69.60, B_2O_3 11.09, Al_2O_3 2.00, As_2O_3 0.10, BaO 0.65, CaO 1.37, 1/2

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NEMILOV, S. V., et al., Zhurnal Prikladnoy Khimii, Vol 43, No 6, Jun 70,
pp 1218-1225

MgO 0.80, K₂O 4.16, Na₂O 10.23 mole % was formulated, measurements on which
in the $10^2 - 10^{13}$ poises ($t = 600-1300^\circ$) range led to results that were readily
reproducible.

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USSR

UDC 616-008.922.1.04-089:616.839-089.85-07:616.12-008.1-072.7

NOVIKOVA, N. A., KOROCHKIN, L. I., and RAKHMANOVA, T. B., Institute of Normal and Pathological Physiology, Academy of Medical Sciences USSR, and Institute of Cytology and Genetics, Siberian Department, Academy of Sciences USSR, Novosibirsk

"Effect of 'Immunologic Sympathectomy' on the Cardiac and Respiratory Rates in High-Altitude Hypoxia"

Moscow, Kardiologiya, No 12, 1971, pp 98-99

Abstract: "Immunologic sympathectomy" was performed in 1- to 5-day-old rats by injecting them with antibody to the nerve growth factor. Histologic examination of the sympathetic trunk a month later revealed a sharp decrease in the number of cells and concomitant disappearance of norepinephrine from the myocardium but increased concentration of epinephrine. The spinal ganglia, however, were little affected by the immune serum. The resistance of the "sympathectomized" animals to hypoxia induced by gradual "elevation" in a pressure chamber to "altitudes" of 1000 to 11,000 m (as determined from the EKG, pneumogram, and rectal temperature) was virtually the same as the control. This finding can be reconciled with published references to lowered resistance of sympathectomized animals to acute hypoxia by assuming that the sympathetic nervous

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NOVIKOVA, N. A., et al., Kardiologiya, No 12, 1971, pp 98-99

system is mobilized by sudden acute hypoxia but not when there is a possibility of slow, gradual adaptation to a deficiency of oxygen.

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1/2 026
UNCLASSIFIED
PROCESSING DATE--23OCT70
TITLE--EXPERIMENTAL PROPHYLAXIS OF ACUTE CARDIAC INCOMPETENCE BY
PRELIMINARY TRAINING OF ANIMALS TO HYPOXIA OF HIGH ALTITUDE -U-
AUTHOR--(05)-MEYERSON, F.Z., MAYZELIS, M.YA., MARKOVSKAYA, G.I., GOLUBEVA,
L.O., NOVIKOVA, N.A.
COUNTRY OF INFO--USSR
SOURCE--PATOLOGICHESKAYA FIZIOLOGIYA I EKSPERIMENTAL'NAYA TERAPIYA, 1970,
VOL 14, NR 2, PP 49-54
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--HEART DISEASE, ALTITUDE CHAMBER, BIOMEDICAL CHAMBER,
VENTRICULAR HYPERTROPHY, MYOCARDIUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1988/0144

STEP NO--UR/0396/70/014/002/0049/0054

CIRC ACCESSION NO--AP0105230

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--23OCT70

2/2 026
CIRC ACCESSION NO--AP0105230
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. WISTAR RATS WERE TRAINED FOR 40 DAYS IN A BAROCHAMBER, 6 HOURS DAILY AT AN "ALTITUDE" OF SEVEN THOUSAND METERS. SUCH TRAINING LED TO ACTIVATION OF THE SYNTHESIS OF NUCLEIC ACIDS AND PROTEIN IN THE MYOCARDIUM OF THE LEFT, AND, PARTICULARLY, OF THE RIGHT CARDIAC VENTRICLE (WHICH SERVED AS THE BASIS OF HYPERTROPHY), AND TO INCREASE OF THE MAXIMAL POWER OF CONTRACTION OF THE VENTRICLES (OF THE LEFT, BY 18 PER CENT, AND OF THE RIGHT, BY 33 PER CENT). THIS TRAINING WAS CARRIED OUT FOR THE PURPOSE OF PREVENTION OF ACUTE CARDIAC INSUFFICIENCY PRODUCED BY OVERLOADING IN CORACTATION OF AORTA. PRELIMINARY TRAINING TO HIGH ALTITUDE HYPOXIA PROVED TO PREVENT OR TO REDUCE DISTURBANCES OF METABOLISM AND MYOCARDIAL FUNCTION WHICH USUALLY FOLLOWED INDUCTION OF AN EXPERIMENTAL DEFECT, AND CONSTITUTED THE BASIS OF CARDIAC INCOMPETENCE.

FACILITY: LABORATORIYA
EKSPERIMENTAL'NOY KARDIOLOGII INSTITUTA NORMAL'NOY I PATOLOGICHESKOY
FIZIOLOGII AMN SSSR, MOSKVA.

UNCLASSIFIED

USSR

UDC: 612.172-06:615.273.2

NOVIKOVA, N. A., and KAPEL'KO, V. I., Laboratory of Experimental Cardiology,
Institute of Normal and Pathological Physiology, Academy of Medical Sciences
USSR, Moscow

"Dynamics of Myocardial Contractility During and After Adaptation to High-Altitude Hypoxia"

Moscow, Byulleten' Eksperimental'noy Biologii i Meditsiny, Vol 70, No 11, Nov 70,
pp 30-32

Abstract: Rats were conditioned to moderate hypoxia (6000 m) in a pressure chamber for 8 weeks. The conditioning enlarged the heart and increased its functional capabilities as measured by the maximum force of myocardial contraction and the index of contractility. A similar period of conditioning at a higher simulated altitude (7300 m) resulted in even greater hypertrophy and a corresponding increase in the maximum force of myocardial contraction. Six weeks after the conclusion of the training period, the ventricular hypertrophy returned to normal and contractility was the same as in the controls.

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USSR

UDC 616.12-008.46-092.9-084

MEYERSON, F. Z., MAYSELIS, M. YA., MARKOVSKAYA, G. I., GOLUBEVA, L. O., and NOVIKOVA, N. A., Laboratory of Experimental Cardiology, Institute of Normal and Pathological Physiology, Academy of Medical Sciences USSR

"Experimental Prophylaxis of Acute Cardiac Insufficiency by Preliminary Conditioning of Animals to High-Altitude Hypoxia"

Moscow, Patologicheskaya Fiziologiya i Eksperimental'naya Terapiya, No 2, 1970, pp 49-54

Abstract: A total of forty days of conditioning of Wistar rats to hypoxia (6 hours daily at a simulated altitude of 7000 m) intensified the synthesis of nuclei acids and protein in the myocardium of the left and right ventricles (especially the latter), and increased the maximum force of ventricular contractions. Cardiac insufficiency induced by coarctation of the aorta resulted in marked edema of the subcutaneous fatty tissue of the neck and chest in untrained rats, but did not have this effect in trained animals. Cardiac insufficiency also produced metabolic disturbances and impaired myocardial contractility in untrained animals. In the

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MEYERSON, F. Z., et al., Moscow, Patologicheskaya Fiziologiya i Eksperimental'naya Terapiya, No 2, 1970, pp 49-54.

trained animals, however, these changes were nonexistent or present only in a mild form. The reasons for the high degree of resistance to acute cardiac insufficiency created by preliminary conditioning to hypoxia are discussed.

2/2

1/2 018 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--ACTIVITY OF ENZYMES OF ENERGETIC METABOLISM OF THE SKIN IN
DIFFERENT STAGES OF ECZEMA -U-
AUTHOR--NGVIKOVA, N.F.
COUNTRY OF INFO--USSR
SOURCE--VESTNIK DERMATOLOGII I VENEROLOGII, 1970, NR 6, PP 26-31
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--SKIN DISEASE, HISTOCHEMISTRY, ENZYME ACTIVITY, CELL
PHYSIOLOGY, SUCCINATE DEHYDROGENASE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3005/1380 STEP NO--UR/0206/70/000/006/0026/0031
CIRC ACCESSION NO--AP013332
UNCLASSIFIED

2/2 018

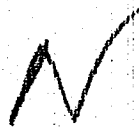
UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0133332

ABSTRACT/EXTRACT--(U) GP-C- ABSTRACT. HISTOCHEMICAL STUDIES OF ENZYMES OF ENERGETIC METABOLISM OF THE SKIN IN PATIENTS WITH DIFFERENT STAGES OF ECZEMA REVEALED PROFOUND METABOLIS DISORDERS. IN ALL STAGES OF ECZEMA THERE WAS A REDUCTION IN THE ACTIVITY OF ALL THE ENZYMES UNDER STUDY IN THE EPIDERMIS, PARTICULARLY OF SUCCINATEDEHYDROGENASE AND CYTOCHROME OXIDASE. THE ACTIVITY OF THE ENZYMES WAS MOST MARKEDLY REDUCED IN ACUTE ECZEMA IN THE EPIDERMIS, PARTICULARLY IN SITES OF INTERCELLULAR AND INTRACELLULAR EDEMA. IN CHRONIC ECZEMA THE ACTIVITY OF GLYCOLYTIC ENZYMES IS INCREASED IN THE EPIDERMIS, AS WELL AS IN THE VESSEL WALLS, FIBROBLASTS AND CELLS OF INFLAMMATORY INFILTRATES. FACILITY:
OTDEL PATOMORFOLOGII TSENTRAL'NOGO NAUCHNO-ISSLEO.
KOZHNO-VENEROLOGICHESKOGO INSTITUTA MZ SSSR.

UNCLASSIFIED

1/2 031 UNCLASSIFIED PROCESSING DATE--18SEP70
TITLE--THE DYNAMICS OF HISTOCHEMICAL CHANGES IN THE SKIN IN DIFFERENT
STAGES OF ECZEMA -U-
AUTHOR--(02)-TSVETKOVA, G.M., NOVIKOVA, N.F. 
COUNTRY OF INFO--USSR
SOURCE--VESTNIK DERMATOLOGII I VENEROLOGII, 1970, NR 3, PP 13-17
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--HISTOCHEMISTRY, SKIN DISEASE, METABOLISM, ENZYME ACTIVITY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1985/1491 STEP NO--UR/0206/T0/000/003/0013/0017
CIRC ACCESSION NO--AP0101575
UNCLASSIFIED

2/2 031

UNCLASSIFIED

PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0101575

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. INVESTIGATION OF HISTOCHEMICAL CHANGES IN THE SKIN AT DIFFERENT STAGES OF ECZEMA DYNAMICALLY (15 OBSERVATIONS) SHOWED THE PATHOLOGICAL PROCESS TO BE UNDERLIED BY PROFOUND METABOLIC DISORDERS ACCOMPANIED BY HYPOXY OF CELL ELEMENTS PARTICULARLY IN THE ACUTE STAGE OF THE DISEASE. THE LATTER IS CONFIRMED BY A REDUCTION IN THE ACTIVITY OF ENZYMES CATALYSING BIOLOGICAL OXIDATION, AS WELL AS BY A REDUCTION IN THE ACTIVITY OF CELL ELEMENTS BOTH OF EPIDERMIC AND DERMA. THIS ACCOMPANIED BY DISORDERS IN PERMEABILITY OF THE BLOOD VESSELS OF THE SKIN AND INCREASED FUNCTION OF THE MAST CELLS.

UNCLASSIFIED

Acc. Nr: **AP0047335**

Ref. Code: **UR0206**

PRIMARY SOURCE: Vestnik Dermatologii i Venerologii, 1970,
Nr 1, pp 21-26

ACTIVITY OF ENZYMES OF ENERGETIC METABOLISM IN THE NORMAL HUMAN
SKIN

N. F. Novikova

Summary

Histochemical study of oxidative-reductive enzymes in the normal human skin (10 observations) indicated that in the epidermis processes of glycolysis were much more prevalent than respiratory processes. The greatest activity in the epidermis and structures of derma was found in NAD- and NADP-diaphorases reflecting the state of activity of dehydrogenases associated with NAD and NADP. Distribution of the enzymes under study in the skin was not uniform which reflected different intensity of biochemical processes in different cells depending upon their functional state.

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REEL/FRAME
19790859

DI 2

USSR

UDC 547.759.3:543.422.25

MOVIKOVA, N. N.; SILENKO, I. D.; KUCHEROVA, N. F., and ZAGOREVSKIY, V. A., Institute of Pharmacology, USSR Academy of Medical Sciences, Moscow

"Indole Derivatives. XII. Cyclization of 1-R-2-(β -Aminoisobutyl)Indole With Cyclic Ketones"

Kiga, Khimiya Geterotsiklicheskh Soyedineniy, No 7, 1973, pp 942-944

Abstract: Experiments were conducted on the cyclization of 2-(β -aminoisobutyl)indole and 1-methyl-2-(β -aminoisobutyl)indole with several alicyclic and heterocyclic ketones in a mixture of absolute ethanol and benzene containing catalytic amounts of HCl. These reactions yielded imines or spirans of the 1,2,3,4-tetrahydro- γ -phenolic series.

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USSR

UDC: Δ 539.1.073/.074

VLADIMIRSKIY, V. V., KOROL'KOV, I. Ya., NOVIKOVA, N. V., and NOZDRACHEV, V. N.

"A Method of Filmless Information Recording From Wire Spark Chambers in a Strong Magnetic Field"

Moscow, Pribery i Tekhnika Eksperimenta, No 5, 1973, pp 55-56

Abstract: The basic idea of this method is the recording of ultrasonic oscillations arising from the interaction of a current induced in a sonic conductor with an external magnetic field. The present article explores the use of the electrodynamic method, with an intense magnetic field, in the filmless information recording system, based on this idea, involving wire spark chambers with ferrite and magnetostriction information recording. The exploration was first conducted with models and then on a mock-up of the wire spark chamber measuring $1200 \times 650 \text{ mm}^2$, filled with a Ne+He mixture, in a magnetic field with an induction of 18 kilogauss. This method was found to have a high sensitivity and is capable of use with magnetic fields stronger than 1 kilooersted, a field intensity at which other methods are ineffective.

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Veterinary Medicine

U.S.R.

UDC 576.858+578.083

NOVIKOVA, N. V., SHTIKKEL', E. I., and LIPOVICH, I. V., Institute of Biochemistry and Physiology, Academy of Sciences Kirgiz SSR

"The Effect of Dibazol on Interferon Formation by Cells of Fetal Sheep Skin After Infection of These Cells With the Virus of Contagious Ecthyma -- (Sheep Pox)"

Frunze, Izvestiya Akademii Nauk Kirgizskoy SSR, No 1, Jan/Feb 72, p 52

Abstract: It has been established in earlier work (Novikova, Veterinariya, No 10, 48-9, 1971) that the presence of dibazol increases the resistance of cells of fetal sheep skin to the virus of contagious ecthyma (sheep pox). A culture of fetal sheep skin was infected with the virus of contagious ecthyma in the presence and absence of dibazol. After the virus had been destroyed by the action of HCl for four days at 4°C, followed by addition of NaOH to pH 7.2-7.4, the interferon was titrated in a culture of fetal sheep kidney cells infected with the virus of contagious ecthyma. The culture medium from the skin cells infected in the absence of dibazol inhibited the cytopathic effect of the virus in a dilution of 1:2, while the medium from the skin cells infected in the presence of dibazol had this effect in a dilution of 1:8. This indicated that dibazol stimulated interferon formation by skin
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USSR

NOVIKOVA, N. V., et al., Izvestiya Akademii Nauk Kirgizskoy SSR, No 1,
Jan/Feb 72, p 52

cells upon infection of the cells with the virus, because media from non-
infected control cultures that contained or did not contain dibazol did not
inhibit the cytopathic effect of the virus under similar conditions.

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1/2 007 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--NQR NUCLEAR QUADRUPOLE RESONANCE SPECTRA OF ANTIMONY 121 AND
ANTIMONY 123 IN R SUB3 SBX SUB2 COMPOUNDS -U-
AUTHOR--(05)-SVERGUN, V.I., BORISOV, A.YE., NOVIKOVA, N.V., BABUSHKINA,
T.A., BRYUKHOVA, YE.V.
COUNTRY OF INFO--USSR
SOURCE--IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (2), 484-5
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--NUCLEAR RESONANCE, CHLORIDE, ANTIMONY ISOTOPE, BROMINE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1997/1519 STEP NO--UR/0062/70/000/002/0484/0485
CIRC ACCESSION NO--AP0120300
UNCLASSIFIED

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UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0120300

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE NQR SPECTRA OF PRIME121 SB AND PRIME123 SB WERE REPORTED FOR R SUB3 SBX SUB2 WHERE R WAS SELECTED FROM ME, ISO BU, BU, CL, PH, CIS AND TRANS CLCH:CH, AND X WAS SELECTED FROM CL AND BR. THE MEASUREMENTS WERE TAKEN AT 77DEGREESK. PH SUB3 ASCL SUB2 IS ISMORPHOUS WITH PH SUB3 SBCL SUB2 AS THEIR RESP. NQR DATA ARE READILY TRANSLATABLE. FACILITY: INST. ELEMENTOORG. SOEDIN., MOSCOW, USSR.

UNCLASSIFIED

Organometallic Compounds

USSR

UDC 542.957:547.357.2

NESMEYANOV, A. N., BORISOV, A. YE., and NOVIKOVA, N. V., Institute of Hetero-organic Compounds, Academy of Sciences USSR

"Reaction of Some Organometallic Monohydrides With Ethynylferrocene"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 6, Jun 72, pp 1372-1375

Abstract: Continuing their studies in the field of bimetallic derivatives of the ethylene series $R_{n-1}M^I CH=CH M^II R_{m-1}$ which contain various combinations of elements (Sn, Ge, Sb, As, Si, Hg) in the molecule, the authors studied the addition of triphenylstannane, triphenylgermane and diphenylstibine to ethynylferrocene and obtained respectively: (1-ferrocenyl-2-triphenylstannyl)ethylene (I), (1-ferrocenyl-2-triphenylgermyl)ethylene and (1-ferrocenyl-2-diphenylstibyl)ethylene. I reacts with corrosive sublimate to form β -ferrocenylvinylmercuric chloride, symmetrization of which with KI gives di-(β -ferrocenylvinyl)mercury, which under the action of corrosive sublimate is readily converted again to β -ferrocenylvinylmercuric chloride. Under the action of bromine I is converted into β -bromovinylferrocene. α -Chlorovinylferrocene reacts with lithiumtriphenylstannane to give (1-ferrocenyl-1-triphenylstannyl)-ethylene.

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Acc. Nr.: **AP0029510**

Ref. Code: UR 0240

PRIMARY SOURCE: Gigiyena i Sanitariya, 1970, Nr 1, pp 61-66

FEATURES TO PECULIAR GLOBAL CESIUM-137
AND STRONTIUM-90 REACHING THE POPULATION
OF POLECIA BY DIFFERENT FOOD SUPPLY ROUTES

A. N. Mareu, R. M. Barkhudarov, V. K. Chumak, E. V. Petukhova,
E. B. Tyuryukanova, G. A. Kuznetsova, N. Ya. Novikova,
S. B. Pozhivilova, G. A. Bogdanovich

The paper presents investigation data on the order of passage of abovementioned isotopes from the soil into food products with due regard for the soil nature and the accumulation of isotopes in the human body. The finding was that the extent of the passage of cesium-137 from the soil into food products fluctuated considerably and depended on the type of soil. Thus, in a soil consisting mainly of a sand fraction the passage of cesium-137 was more pronounced. Similar observation were made in respect to all of the objects examined. However, no differences in the migration of strontium-90 could be detected. Due to the high passage of cesium-137 into food products its content in the human body was high as well.

REEL/FRAME

19681111

USSR

UDC 632.95

YUKHTIN, N. N., ANDREYEVA, YE. I., MEL'NIKOV, N. N., ~~SKALOUZUEVA, A. V.~~,
PRONCHENKO, T. S., SHKURATOVA, G. N., YURKOVA, A. G., KURGANOV, L. B.,
NOVIKOVA, R. G., and OBUKHOVA, V. I.

"Phenylmercury and Hexylmercury"

V sb. Khim. sredstva zashchity rast. (Chemical Agents for Plant Protection -- collection of works), vup 1, Moscow 1970, pp 145-150 (from RZh-Khimiya, No 11, Jun 72, Abstract No 11K426)

Translation: Seed disinfectant dusts -- hexylmercury (1% EtHgCl, 18-22% hexachlorobenzene, and up to 20% γ -hexachlorocyclohexane) and phenylmercury (1% EtHgCl and 18-22% hexachlorobenzene) -- are officially authorized in the Soviet Union for use against the same plant diseases as those controlled by granosan. About half the EtHgCl expended when granosan is used is expended when phenylmercury and hexylmercury are used. Phenylmercury can be used against fusarium wilt and helminthosporiosis. The new disinfectants show promise as agents for controlling dwarf wheat infections and wheat kernel smut. The most promising signal dyes for the disinfected grain are Rhodamine C, methylene blue, acid blue-black and direct red 2C.

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USSR

UDC 632.95

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MEL'NIKOV, N. N., ANDREYEVA, YE. I., PRONCHENKO, T. S., SKALOZUBOVA, A. V.,
SHKURATOVA, G. N., KURGANOVA, L. B., YURKOVA, A. G., OBUKOVA, V. I., and
NOVIKOVA, R. G.

"Concerning Liquid Organomercury Seed Disinfectants"

V sb. Khim. sredstva zashchity rast. (Chemical Agents for Plant Protection --
collection of works), vyp 1, Moscow, 1970, pp 150-155 (From RZh-Khimiya, No 11,
Jun 72, Abstract No 111427)

Translation: From the results of hothouse and small-plot field tests of
non-Soviet and experimental Soviet samples of liquid organomercury fungicides,
as well as with consideration to non-Soviet research and practical use in such
fungicides, the authors conclude that liquid preparations deserve attention
as promising forms for use as seed disinfectants in Soviet agriculture.

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1/2 033 UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--CHARACTERISTICS OF SUBJECTIVE NOISIES IN HYPERTENSIVE DISEASE -U-
AUTHOR--MOSTOVOY, S.I., NOVIKOVA, R.K.
COUNTRY OF INFO--USSR
SOURCE--VRACHEBNOYE DELO, 1970, NR 3, PP 92-94
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--HYPERTENSION, WHITE NOISE, SYNDROME, AUDITORY SYSTEM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRA--1986/0967

STEP NO--UR/0475/70/000/003/0092/0094

CIRC ACCESSION NO--AP0102906

UNCLASSIFIED

2/2 033

UNCLASSIFIED

PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0102906

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. OF 169 PATIENTS WITH HYPERTENSIVE DISEASE 71 (42PERCENT) COMPLAINED OF NOISES. THEIR FREQUENCY INCREASED WITH THE SEVERITY OF THE DISEASE AND AGE. IN 45 PATIENTS THE MAIN SITE OF THE NOISE WAS THE HEAD. TWENTY SIX PATIENTS COMPLAINED OF NOISE IN THE EARS. FOLLOWING TREATMENT IN THE BIOTRON THE NOISE IN BOTH LOCATIONS DISAPPEARED OR SIGNIFICANTLY DECREASED. IN THE MAJORITY OF PATIENTS WITH HYPERTENSIVE DISEASE NOISES ARE OF CENTRAL CHARACTER. THEIR BASIS IS POSSIBLE DYNAMIC CIRCULATORY DISORDERS, TROPHIC DISORDERS OF THE AUDITORY ANALYSER.

UNCLASSIFIED

USSR

UDC: 542.61:(546.791+546.831+546.36)

MEZHOV, E. A., NOVIKOVA, S. A., SHMIDT, V. S.

"Using Various Types of Amines to Extract Uranium, Zirconium, and Nitros-nitrates of Trivalent Ruthenium From Nitrate Solutions"

Leningrad, Radiokhimiya, Vol 14, No 3, 1972, pp 473-476

Abstract: A study was made of the effect which amine structure has on the capacity of amine compounds to extract small concentrations of hexavalent uranium and trace concentrations of ^{95}Zr and ^{106}Ru (in the form of a mixture of nitrosnitrates of trivalent ruthenium) from nitrate solutions. The experimental data for uranium extraction confirm the results found previously by Schmidt and Mezhev ((Uspekhi khimii, Vol 34, No 8, 1965, p 1388). The results for zirconium and ruthenium showed no definite correlation between the structure of the amines and their capacity for extraction of these elements.

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1/2 009 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--A STUDY OF THE INITIAL STAGES OF SUCROSE DECOMPOSITION BY THE
STRAINS OF CLADOSPORIUM SP -U-
AUTHOR-(03)-NOVIKOVA, S.I., BONDARCHUK, A.A., VASILENKO, G.D.
COUNTRY OF INFO--USSR
SOURCE--MIKROBIOLOGIYA, 1970, VOL 39, NR 1, PP 35-41
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--SUCROSE, SACCHARIDE, HYDROLYSIS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FAME--1996/0483 STEP NO--UR/0220/70/039/001/0035/0041
CIRC ACCESSION NO--AP0117719
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--23OCT70

2/2 009

CIRC ACCESSION NO--AP0117719

ABSTRACT/EXTRACT--(U) GP-O-

ABSTRACT. SUCROSE PHOSPHOROLYSIS WAS NOT FOUND DURING THE INITIAL STAGES OF SUCROSE DECOMPOSITION BY CLADOSPORIUM SP., STRAINS 1622, AND 5143. THE STRAINS DECOMPOSED SUCROSE BY HYDROLYSIS FOLLOWED WITH TRANSHEXOZILATION RESULTING IN OLIGOSACCHARIDES WITH DIFFERENT VALUES OF R SUBGL. THESE OLIGOSACCHARIDES WERE PROVED TO BE MAINLY TRANSFRUCTOZILATION PRODUCTS. HYDROLYTIC AND TRANSHEXOSILASE ACTIVITIES VARY IN DIFFERENT STRAINS AND DEPEND ON THE CULTURAL AGE.

UNCLASSIFIED

USSR

UDC 669.294.5.293.018.5

ZHIKHAREV, Yu. V., KOVALEV, K. S., NOVIKOVA, S. M., ROMANOVA, N. A., CHUPRIKOV, A. V.

"Study of the Possibility of Replacing Tantalum Foil Used for Manufacture of Dry Electrolytic Condensers With Tantalum-Niobium Alloy Foil"

Nauchn. Tr. N-i. i Proyechn. In-t Redkomet. Prom-sti [Scientific Works of Scientific Research and Planning Institute for the Rare Metals Industry], 1971, Vol. 32, pp. 66-70. (Translated from Referativnyy Zhurnal Metallurgiya, No. 5, 1971, Abstract No. 5 I788 by the authors).

Translation: The permissible content of Nb in Ta which does not worsen the special characteristics of condenser foil is determined. A possible area of application of foil of Ta-Nb alloys in condensers of various capacities is indicated. The basic electrical characteristics of dry condensers of various capacities made of Ta-Nb alloys are presented. 2 figs; 4 tables; 3 biblio refs.

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USSR

UDC: 621.319.4

ZHIKHAREV, Yu. V., KOVALEV, K. S., NOVIKOVA, S. M., ROMANOVA, N. A., CHUPRIKOV, A. V.

"Investigation of the Possibility of Substituting Tantalum-Niobium Alloy Foil for the Tantalum Foil Used in Making Dry Electrolytic Capacitors"

Nauchn. tr. N.-i. i proyekt. in-t redkomet. prom-sti (Scientific Works of the Scientific Research and Design Institute of the Rare Metals Industry), 1971, 32, pp 66-70 (from RZh-Radiotekhnika, No 5, May 71, Abstract No 5V328)

Translation: The authors consider the possibility of substituting tantalum-niobium alloys for the tantalum used in making capacitor foil. An investigation is made of the effect which the niobium content in tantalum has on the special electrical properties of capacitor foil. It is shown how the heat treatment temperature affects the properties of foil made from tantalum-niobium alloys. The permissible concentration of niobium in tantalum is determined which does not have an adverse affect on the special characteristics of capacitor foil. The potential field of application of foil made from niobium-tantalum alloys in capacitors of various ratings is indicated. The basic electrical characteristics are given for dry capacitors of various ratings made from tantalum-niobium alloy foil. Two illustrations, four tables. Resumé.

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USSR

UDC: 621.319.4

KOVALEV, K. S., ZHIKHAREV, Yu. V., NOVIKOVA, S. M., ERLIKH, E. A.

"Increasing Cold Resistance in Foil Tantalum Capacitors With a Working Voltage of 6 and 15 Volts"

Nauch. tr. N.-i. i proyekt. in-tredkomet. prom-sti (Scientific Works of the Scientific Research and Design Institute of the Rare Metals Industry), 1971, 32, pp 76-83 (from RZh-Radiotekhnika, No 5, May 71, Abstract No 5V327)

Translation: The authors investigate factors which have a considerable influence on the electrical characteristics of tantalum foil capacitors with a working voltage of 6 and 15 volts. A new grade of paper is selected for the liners. The optimum coefficient ϕ for the paper and its thickness are determined. The tantalum foil oxidation voltage and geometric dimensions of the plates are more precisely determined. Two illustrations, bibliography of five titles. Resumé.

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NOVIKOVA, S. P.

Physiology

EFFECT OF PROLONGED HYPOKINESIA ON SEROTONIN METABOLISM IN RATS
 Article by N. S. Bolgun, S. P. Novikova, and V. S. Shashkov, Moscow, Koz-
 michekaya Biologiya i Meditsina, Moscow, Vol. 5, No. 3, 1971, pp 12-15,
 submitted 19 May 1970

So: JPRS 53801
 1 A Aug 71

UDC 612.015.3:547.751-06:612.766.2

Abstract: A study was made of the effect of prolonged hypokinesia on serotonin (5-HT) metabolism in rats. It was found that motor activity restriction causes substantial 5-HT metabolism shifts. The most marked deviations from normality in the 5-HT content in the duodenal blood and tissues, and also in the excretion of the metabolites of 5-HT 5-hydroxyindolylacetic acid (5-HIAA) in the urine, were observed on the first-third and thirteenth-fifteenth days of hypokinesia. Prolonged (more than 60 days) hypokinesia leads to a considerable increase in the blood 5-HT content; on the 10th and 45th days after "emergence" from hypokinesia the blood 5-HT content remains high.

Serotonin (5-hydroxytryptamine, 5-HT) is present in the tissues of virtually all species of animals. The literature contains information on the participation of 5-HT in regulating motor, cardiovascular, digestive and other functions and body systems. It is regarded as a substance closely associated with the body endocrine function, as an antidiuretic hormone, as a blood pressure regulator, hemagglutinating, antiproliferative and antitumor factor, nervous system mediator, etc.

According to data in the literature from recent years, 5-HT, depending on body functional state, can intensify the effect of both the sympathetic and parasympathetic nervous systems. This made it possible to determine 5-HT as a mediator of the nervous system trophotropic function unrelated to any one part of it (Brooks).

An examination of animals returning from brief spaceflight revealed definite shifts in the 5-HT blood content (V. S. Shashkov, et al.). It is

NOVIKOVA, S. P.

Space Medicine

SO: JPRS 53388

17 Jan 71

UDC 612.822.2.014.482

EFFECT OF IONIZED AIR ON ACETYLCHOLINE CONTENT AND CHOLINESTERASE ACTIVITY IN MICE OF DIFFERENT LINES

[Article by R. V. Anisimov and S. P. Novikova; Moscow, Komsomolskaya Biologiya i Meditsina, Russian, Vol. 2, No. 1, 1971, pp. 19-21, submitted for publication 30 April 1970]

Abstract: Mice of different lines which were exposed to ionized air for 24 hours exhibited a reduced acetylcholine content in the intestine and an increased cholinesterase activity in the blood serum. Positive ions caused more distinct changes. Analysis of data in the literature and original findings by the authors suggest that one of the peculiarities of the physiological effect of atmospheric ions is their influence on the interaction between cholinergic and serotonergic systems.

Under spaceflight conditions the air in spaceship cabins will be ionized under the influence of radiation. The predicted concentration of aerions during irradiation in doses corresponding to the mean level of galactic radiation is 10^5 aerions per 1 cm^3 (G. P. Aleksandryuk, et al.). Prolonged aerionosis in a pressurized chamber have demonstrated a substantial influence on the human body by ionized air in the case of the concentrations of aerions expected under real spaceflight conditions (Yu. G. Refedov, et al.). However, the mechanism of the effect of ionized air has not been clarified.

The studies of G. K. Trofimov and O. V. Yesyrev, Krueger, et al. have demonstrated the participation of acetylcholine and serotonin in the mechanism of the effect of aerions on the body. For example, G. K. Trofimov and O. V. Yesyrev concluded that the mechanism of the effect of aerions on the ciliated epithelium of the mucous membrane of the esophagus is related to the aerion activation of cholinesterase, causing a decrease in the concentration of acetylcholine in the epithelial cells.

We conducted experiments for studying the effect of ionized air on the acetylcholine-cholinesterase system in mice.

NOVIKOVA, S. P.

SD: JPRS 54396
03 NOV 71

UDC 612.120.547.751/.014.45.014.47:613.693

METHOD FOR DETERMINING SEROTONIN (5-HYDROXYTRYPTAMINE) IN THE INTACT BLOOD OF RATS

Article by Z. S. Dolgun, S. P. Novikova and V. S. Shashkov; Moscow, Kosmicheskaya Biokhimiya i Meditsina, Kibernetika, vol. 5, No. 4, pp. 69-71, 1971, submitted for publication 23 April 1970

In a study of the effect exerted on the body by extremal factors it is of considerable interest to determine serotonin (5-HT) in the blood of experimental animals.

The experiments made by some authors revealed that weightlessness, vibration, noise and spaceflight itself exert an effect on the 5-HT content in blood and tissues. Due to the need for further investigations in this direction we formulated the problem of developing methods for determining 5-HT in a small quantity of blood suitable for standard analyses of a large number of samples.

Existing methods for determining 5-HT in small volumes of blood have a number of shortcomings. The most sensitive method is the biological method, but the accuracy in determining 5-HT is dependent on the sensitivity of the biological test and condition of the animal from which the organ is taken as a test object. In addition, this method is extremely time consuming and unproductive.

The several biochemical methods for determining blood 5-HT require quite large quantities of blood (6-9 ml).

Maalkos, et al. proposed a specific method for determining blood 5-HT by modifying the Yudenfriend method. The use of this method requires 3 ml of blood; this was unacceptable under our conditions. Snyder, et al. described a method for determining 5-HT in the tissues of animals using ninhydrin; this made possible an eightfold increase in method sensitivity.

We used the method developed by Snyder, et al. for determining blood 5-HT, precipitating proteins by the method devised by Maalkos, et al.; during the first stage of 5-HT extraction butanol was used instead of the usual acidic method. The latter was first proposed for extraction by Ansell, et al. (1968).

Space Physiology

1/2 028 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--PHARMACOLOGICAL ACTION OF MEXAMINE WITH DIFFERENT ROUTES OF ITS
ADMINISTRATION INTO INTACT DOGS -U-
AUTHOR--(04)-SHASHKOV, V.S., ANISIMOV, B.V., NOVIKOVA, S.P., TRACHENKO,
P.A.
COUNTRY OF INFO--USSR
SOURCE--FARMAKOL. TOKSIKOL. (MOSCOW) 1970, 33(3), 278-82
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--DOG, MEXAMINE, DRUG EFFECT, BLOOD PRESSURE, RESPIRATION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY FICHE NO----FD70/605004/B04 STEP NO--UR/0390/70/033/003/0278/0282
CIRC ACCESSION NO--AP0139592
UNCLASSIFIED

2/2 028

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0139592

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. HEXAMINE, GIVEN TO
NONANESTHETIZED DOGS AT 10 MG-KG I.M. OR 100 MG-KG INTRAGASTRICALLY,
DURING THE 1ST 15 MIN ACCELERATED THE PULSE AND INCREASED AND THEN
DECREASED BOTH THE SYSTOLIC AND PULSE PRESSURES. AFTER THAT, IN DOGS
WHICH HAD RECEIVED THE COMPO. INTRAGASTRICALLY, THE AMPLITUDE AND
FREQUENCY OF RESPIRATION AND THE SYSTOLIC, DIASTOLIC, AND PULSE
PRESSURES ALL VARIED ABOVE AND BELOW NORMAL LEVELS DURING THE 100 MIN
AFTER ADMINISTRATION, WHILE IN DOGS WHICH HAD RECEIVED THE COMPO. I.M.,
ALL THESE VALUES REMAINED ABOVE NORMAL. THE I.M. INTRODUCTION OF THE
COMPO. CAUSED A MUCH GREATER INITIAL RESPIRATION RATE INCREASE THAN DID
THE INTRAGASTRIC INTRODUCTION.

UNCLASSIFIED

USSR

UDC 678.742.3-137.462.2:613.632

SMUROVA, YE. V., ZURLOVA, O. M., SOSIN, S. L., ANTIPOVA, E. A., NOVIKOVA,
S. P., KARPINSKAYA, V. M.

"Interaction of Modified Polypropylene with Blood"

Moscow, Plasticheskiye Massy, No 4, 1972, pp 60-61

Abstract: The results of studying polymers with antithrombogenic properties are described. Data are presented on obtaining a sulfonated inoculated copolymer of polypropylene and polystyrene, and a study is made of the conditions permitting the polymer to be obtained which prevents the coagulation of blood on contact. With an increase in the active group content, the given copolymers cause significant hemolysis of the blood corpuscles. Iron ions must introduced into the copolymer to eliminate this phenomenon. The presence of iron ions in the sulfonated inoculated copolymer polypropylene+polystyrene+polyvinylferrocene promotes a noticeable reduction in the hemolysis of the red blood corpuscles on contact of the blood with copolymers without changing the antithrombogenic properties.

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USSR

UDC 621.762.001:669.27

TRET'YAKOV, V. I., PIVOVAROV, L. Kh., NOVIKOVA, M. B., LIDER, V. Ya.,
NOVIKOVA, T. A., VRZHESHCH, Ye. Ya., and KARASEV, G. F.

"Influence of Surface Layer on Plates of Titanium-Tungsten Hard Alloys
on Wear Resistance During Cutting"

Sb. tr. Vses. n.-i. i proyekt. in-t tugoplavk. met. i tverd. splavov
[Collected Works of All-Union Scientific Research and Planning Institute
for Refractory Metals and Hard Alloys], No. 10, 1970, pp. 55-60
(Translated from Referativnyy Zhurnal-Metallurgiya, No. 2, 1971, Abstract
No. 2 G413 by the authors)

Translation: Results are described from determination of the resistance
factor to cutting of specimens of titanium-tungsten hard alloys, when
layers of altered composition and structure are formed on the cutting
edges with certain sintering modes. It is established that the presence
of surface layers on the cutting edges of the cutting plates increases
their wear resistance during cutting by an average of 1.6 times.
2 figures; 2 tables; 3 biblio. refs.

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USSR

UDC 617-001.17-07:616-056.3:576.851.252

KOLKER, I. I., NOVIKOVA, T. K., and MOROZOV, S. S., Laboratory of Microbiology and Immunology and Burn Division, Institute of Surgery imeni A. V. Vishnevskiy, Academy of Medical Sciences USSR, Moscow

"Allergy to Staphylococci in Patients With Burns"

Moscow, Klinicheskaya Meditsina, Vol 49, No 3, Mar 71, pp 87-92

Abstract: The persistent presence of Staphylococci in burn wounds, particularly in cases of severe burns, combined with absence of a stable immunity to infection with these microorganisms, led to the assumption that in patients with thermal burns an allergic state develops which plays an important role in the pathogenesis of Staphylococcus infections. Skin tests with Staphylococcus toxoid were carried out on 255 patients with burn traumas, in which the toxoid was applied intracutaneously. A positive skin reaction to the toxoid in a minimum dilution of 1:100, to which healthy persons do not react, was regarded as a sign of heightened sensitivity. The tests disclosed that the patients had initially a lowered skin sensitivity to the toxoid, which lasted for a period that increased in length with increasing severity of the burns. In patients with severe burn exhaustion and in cases of ultimately fatal burns

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KOLKER, I. I., et al., Klinicheskaya Meditsina, Vol 49, No 3, Mar 71, pp 87-92.

no skin reactions were observed during the entire period of observation (up to 1 yr). On termination of the period of lowered sensitivity, which must be regarded as due to inadequate immunological response, a heightened sensitivity was exhibited, due to allergic reorganization of the organism with respect to Staphylococci. Patients who had had severe burns and who returned 2-5 yrs later for treatment of scars or trophic ulcers exhibited a very high sensitivity to Staphylococcus toxoid. The sensitivity was more pronounced in patients with trophic ulcers than in those with scars. Sensitization to Staphylococci in persons with burns must be regarded as a factor that contributes to the prolonged course of Staphylococcus infections in burn patients and to the recurrence of these infections.

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NOVIKOVA, T. V.

SOME PECULIARITIES OF COMMUNICATION PROCESSES IN
SMALL GROUPS

Article by T. V. Novikova, Moscow. Al'ma'nyra yopozhnyy kos-
moskresnyy biologicheskii i meditsinskii (Current Problems in Space
Biology and Medicine), Moscow, 1971, pp 207-208/

A study was made of the influence of pharynx on oral communication procedure in 12 pairs of healthy subjects performing interdependent activity which consisted of a number of domestic problems of increasing complexity. During the course of their activity the subjects were afforded the opportunity of using a conversation device (tubular communication).

All the problems presented can be classified into three types on the basis of complexity. The first type includes the simplest problems (interdependence coefficient less than 1.0 in absolute value), not requiring separation of the functional tasks in the group. The second type includes complex problems (interdependence coefficient from 1.2 to 6.0), for successful solution requiring separation of the tactics of the subjects by type of leader. The third type includes conflict- (irresolvable) problems.

An analysis of the number of oral reactions of the subjects revealed that in solving problems of the first type a minimum number of oral communications is used. In the process of solving problems of the second type this number increased in the background experiment by a factor of five, with the administration of pheromano by a factor of six, and in solving conflicting problems, in the background experiment by a factor of 24 and with the administration of pheromano by a factor of 16.

In Groups with a clear separation of functional tasks the leaders use the conversation device six times more than

SPRS 56, 499 81

14 JULY 72

Simulations

USSR

NOVIKOVA T. Ya.

"Simulation of the Gathering and Processing Procedure in a Specialized System of Information"

Moscow, Nauchno-Tekhnicheskaya Informatsiya, Seriya 1. Organizatsiya i Metodika Informatsionnoy Raboty, April. 1972, pp 15-20

ABSTRACT: The paper discusses the problems of optimum distribution of the "upward" data flows in a specialized system of information in the field of geology on the basis of a simulation of the data gathering and processing procedures.

Quantitative characteristics of the geological information flows are highlighted, taking into account the specific features of this information. Logical restrictions are introduced to reduce the number of alternative, efficient patterns of organization of data connections at the stage of data gathering and processing.

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NOVIKOVA, T. Ya., Nauchno-Tekhnicheskaya Informatsiya, Seriya 1, Organizatsiya i Metodika Informatsionnoy Raboty, April 1972, pp 15-20

The basic alternative patterns of data connections are discussed and evaluated. Based on the results of the evaluation, a preferable pattern of organization at the gathering and processing stage is chosen.

The article includes 7 tables and 5 figures. There are 3 references.

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USSR

UDC 632.95

GOLYSHIN, N. M., ABILENTSEV, V. I., DVUKHSHERSTOV, M. G., MELNIKOV, N. N.,
VOLODKOVICH, S. D., TRUNOV, P. P., DYMSHAKOVA, G. M., NOVIKOVA, V. A.

"Fungicide Mix"

USSR Author's Certificate No 250600, filed 28 Mar 68, published 16 Jul 71 (from
RZh-Khimiya, No 6 (II), Jun 72, Abstract No 6N624)

Translation: Ethylenethiuramdisulfide (13-40%) is added to a fungicide
mix containing ethylenebisdithiocarbamates of Zn (36-55%) and Mn (20-35%)
for simultaneous control of several plant diseases. The preparation can be
used for preplant treatment of the seed of bean and vegetable crops with con-
sumption norms of 6-10 grams/kg of feed.

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USSR

UDC 621.373:530.145.6

DYATLOV, M. K., MAL'KOVA, G. I., NOVIKOVA, V. A., STEPANOV, V. A.,
SUKHANOVA, G. A.

"Service Life of a Helium-Cadmium Laser"

Elektron. tekhnika. Nauch.-tekhn. sb. Gazorazryadn. pribory (Electronic
Technology. Scientific and Technical Collection. Gas-Discharge Devices),
1971, vyp. 1(21), pp 77-85 (from RZh-Radiotekhnika, No 7, Jul 71,
Abstract No 7D134)

Translation: Processes are studied which affect the service life of a
helium-cadmium laser with emission on a wavelength of $4416 \text{ \AA}$. It is
shown that the principal cause for termination of the service life of
this laser is the sorption of helium as cadmium vapor condenses from
the discharge onto the cold sections of the discharge tube. Resumé.

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USSR

UDC 612.824.1+612.83

GETSEL", KH., A., NOVIKOVA, YE. F., and YAKUBOVICH, T. G., Central Scientific Research Laboratory, Department of Biochemistry and Department of Labor Hygiene, Leningrad Sanitary Hygiene Medical Institute

"Age-Induced Alterations of the Permeability of the Blood-Brain Barrier and of Protein Metabolism in the Cerebellum and the Pons Varoli"

Leningrad, Fiziologicheskii Zhurnal SSSR imeni I. M. Sechenov, Vol 59, No 8, Aug 73, pp 1,176-1,182

Abstract: An increase in the permeability of the blood-brain barrier to methionine was demonstrated by autoradiography in new-born and 2-year-old rats, either 15 minutes or 24 hours after administration of 35 S methionine. In addition a decrease in the intensity of cerebral protein synthesis was observed in the intensity of cerebral protein synthesis was observed in 2-year-old animals, compared to 6-month-old mature ones. In comparing macroautoradiography, which presented an overall picture of layers and structure, and micro-autoradiography, which showed fine structure, the authors found that both gave identical results.

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USSR

UDC 531.36

BELETSKIY, V. V., NOVIKOVA, YE. T., Moscow

"Spatial Movement of a Pack of Two Bodies in Orbit"

Moscow, Izvestiya Akademii Nauk SSSR, Mekhanika Tverdogo Tela, No 5, 1971, pp 23-28

Abstract: A study was made of the movement of two particles connected by a flexible weightless thread and artificial Earth satellites put into orbit. The orbit of the center of mass of the system is assumed circular. The movement of such a pack of bodies in the orbital plane has been analyzed previously [V. V. Beletskiy, et al., Kosmicheskkiye issledovaniya, Vol 7, No 3, 1969; Kosmicheskkiye issledovaniya, Vol 7, No 6, 1969]. Here, some results are presented from studying the spatial movement of the bodies. In the general case of spatial movement, the regions of possible movement with a given energy reserve are isolated. The stability of the positions of equilibrium is investigated. In the case of bound movement (that is, movement of a pack of bodies with a tight thread) the regions are found in the phase space inside which the bound nature of the movement is preserved. There are phase trajectories lying wholly in these regions, that is, under defined conditions bound movement can continue indefinitely.

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BELETSKIY, V. V., et al., Izvestiya Akademii Nauk SSSR, Mekhanika Tverdogo Tela, No 5, 1971, pp 23-28

The discussion includes the equations of motion, the conditions of descent, the energy integral, the regions of possible and impossible movement, analysis of the stability of the positions of equilibrium, and the conditions of bound movement.

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USSR

UDC 620.197.6:621.791.763-1

PORTNOY, N. D., and GEYNRIKHS DORF, N. G., Candidates of Technical Sciences, GAFAROV, N. T., NOVIKOVA, Ye. Z. (Ural Railroad Car Plant), TARASOVA, A. A., and KARPECHENKOVA, G. M. (Ural Scientific Research Institute of Ferrous Metallurgy), Engineers

"Characteristics of Certain Protective Coatings Used in Point Resistance Welding"

Moscow, Svarochnoye Proizvodstvo, No 10, Oct 70, pp 43-45

Abstract: A study was made of the effect of impact strength, film elasticity, covering power, and electrical conductivity of corrosion-resistant coatings based on various lacquers on joint quality during welding of type-09G2 steel. Fifteen percent aluminum powder was added to two of the lacquers in order to increase electrical conductivity. With coatings based on lacquers 170 and LSP-1 welding can be done for six days after application. The quality of welded joints covered with composition 119 is decreased if welding is performed more than two days after application of the coating. Oil-base paints are compatible with coatings based on composition 119 and 170 lacquer, but do not dry in the established time when painted over LSP-1 lacquer. Coatings based on 170 lacquer have the 1/2

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PORTNOY, N. D., et al, Svarochnoye Proizvodstvo, No 10, Oct 70, pp 43-45

greatest impact strength. The impact strength of coatings based on LSP-1 lacquer decreases as the temperature increases to 70°C. Such properties of coatings as elasticity, covering power, hardness, heat resistance, and drying time fall within the established norms set by the standards. When parts are painted with LSP-1 varnish and composition 119, the content of xylene in the working area somewhat exceeds the safety norm. When 170 varnish is used, the content of harmful substances falls within the safety norms. The best technological and mechanical properties are provided by corrosion-resistant, low-toxicity coatings based on 170 varnish.

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USSR

UDC 547.241-341

NOVIKOVA, Z. S., GALITSKOVA, N. P. and LUTSENKO, I. F.; Moscow State University;
Imeni M. V. Lomonosov

"Isomerization of Alkenyl Esters of Phosphinous Acid and β -Ketophosphines"

Moscow, Doklady Akademii Nauk SSSR, Vol 203, No 3, 1972, pp 596-599

Abstract: This study follows earlier work by the authors on α -metallated (Hg, Sn) carbonyl compounds, in which they devised methods for synthesizing substituted vinyl esters of phosphinous acid and also the isomeric β -ketophosphines. The present study concerns a new regrouping of the alkenyl esters of diphenylphosphinous acid into β -ketoalkyldiphenylphosphines. The isomeric compounds isopropenyl (I) and α -ethylvinyl (II) esters of diphenylphosphinous acid, along with their isomers diphenylacetonylphosphine (III) and 2-oxobutyl-diphenylphosphine (IV) were investigated. Neither heating nor distillation of these effected any mutual transformations. However, the α -substituted vinyl esters of phosphinous acid, in the presence of various nucleophilic stannocorganic compounds, and also the salts of certain acids, were converted into isomeric β -ketophosphines. Reaction times ranged from 3 hours to 30 days for the eight esters tested. Data obtained are summarized in tabular form.

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UDC 547.341

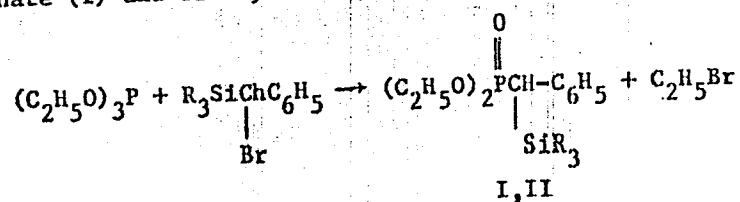
USSR

NOVIKOVA, Z. S., ZDOROVA, S. N., LUTSENKO, I. F.

"Esters of Silicon-Substituted Benzylphosphonic Acids"

Leningrad, Zhurnal Obshchey Khimii, Vol XLII (CIV), No 1, 1972, pp 112-117

Abstract: In order to synthesize the silyl-substituted benzylphosphonates, Arbuzov and Mikhaelis-Bekker reactions were performed with α -halogenbenzylsilanes. Direct silylation of trialkylhalogensilane diethylbenzylphosphonate was also carried out. As a result of the reactions, diethyl- α -trimethylsilylbenzylphosphonate (I) and diethyl- α -triethylbenzylphosphonate (II) were obtained:



By silylation of diethylbenzylphosphonate of trialkylchloromethylsilanes, β -silicon-substituted phosphonates were synthesized. The mobility of the trialkylsilyl radical in these compounds under the effect of nucleophilic reagents was investigated. A study of the properties of the synthesized compounds

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USSR

NOVIKOVA, Z. S., et al., Zhurnal Obshchey Khimii, Vol XLII (CIV), No 1, 1972,
pp 112-117

demonstrated that the α -silicon-substituted benzylphosphonates are easily subjected to alcoholysis.

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UDC 547.246

USSR

NOVIKOVA, Z. S., MASHOSHINA, S. N., and LUTSENKO, I. F., Moscow State University imeni M. V. Lomonosov

"Reaction of Trialkylgermyl Dialkyl Phosphites With Unsaturated Compounds"
Leningrad, Zhurnal Obshchey Khimii, Sep 71, Vol 41, No 9, pp 2110-2111

Abstract: Trialkylgermyl dialkyl phosphites, as well as trialkylsilyl dialkyl phosphites, react with unsaturated compounds to form O- and C-organogermanium derivatives of phosphonates. Trialkylgermyl dialkyl phosphites have been synthesized from sodium dialkyl phosphites and triallylgermylchlorides in ether in 40-50% yield. Germyl phosphites readily react with sulfur, air oxygen and phenylazide. Trialkylgermyl phosphites treated with α, β -unsaturated compounds, ketones and carboxylates yield a mixture of O- and C-germanium-substituted phosphonates. Trialkylgermyl phosphites readily combine with acrylonitrile (30 mins., 80-100°C) with a good yield of an addition product over the C-C multiple bond -- diethyl β -trialkylgermyl- β -cyanoethylphosphonate. The yield is 70%. The reaction of trialkylgermyl diethyl phosphites with an equimolar amount of ketene yields a mixture of O- and C-germanium-substituted acetylphosphates.

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UDC 547.241.341

USSR

NOVIKOVA, Z. S., GALITSKOVA, N. P., KOZLOV, V. A., and LUTSENKO, I. F.,
Moscow State University imeni M. V. Lomonosov

"Reaction of Diphenylphosphine and Potassium Diphenylphosphide With
 α -Mercurylated Aldehydes and Ketones"

Leningrad, Zhurnal Obshchey Khimii, Vol 41 (103), No 4, Apr 71, pp 831-838

Abstract: Reaction of diphenylphosphine with mercuribisacetaldehyde and the reaction of potassium diphenylphosphide with chloromercuriacetaldehyde in a solution of dimethoxyethane takes place with a transfer of the reactive center yielding vinyl ester of diphenylphosphinous acid. In contrast, α -mercurylated ketones react with these reagents in two ways, yielding α , β -substituted vinyl esters of the diphenylphosphinous acid (O-phosphorylation) and α -phosphorylated ketones (C-phosphorylation). The course of the reaction depends on the electron density at the phosphorus atom, on the structure of organomercury compound and on the type of solvent used. The reaction course involving the transfer of the reactive center with the formation of O-isomers is favored by higher electron density on the phosphorus atom, higher basicity, and coordination ability of the solvent. The opposite factors favor the reaction without a transfer of the reactive center to the 1,2-position, leading to the formation of C-isomers.

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USSR

UDC 547.341

NOVIKOVA, Z. S., LUTSENKO, I. F., Moscow State University imeni
M. V. Lomonosov, Moscow, Ministry of Higher and Secondary
Specialized Education RSFSR

"Reaction of Trialkylsilyldialkylphosphites With Unsaturated
Compounds"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 9, Sep 70, p 2129

Abstract: Trialkylsilyldialkylphosphites add easily to saturated and unsaturated carbonyl compounds. In the case of α, β -unsaturated aldehydes, ketones and carboxylic esters, a formation of one of the isomers or of a mixture of O- and C-siliconorganic derivatives of phosphonic acids is possible. For example, trimethylsilyldiethylphosphite (I) reacted with ethylacrylate or acrolein gives a mixture of O- and C-derivatives of trimethylsilylether. Mesityl oxide gives only the C-derivative, b.p. 109-110°/1 mm, d_4^{20} 0.9908, n_D^{20} 1.4470. With ketene the reaction occurs smoothly, yielding $(EtO)_2P(=O)-C(=CH_2)OSiMe_3$, b.p. 109-110/10 mm, d_4^{20} 1.0111, n_D^{20} 1.4355. Benzaldehyde reacted with (I) yields $C_6H_5CH(OSiMe_3)-P(O)(OR)_2$, b.p. 124-125/1-1.5 mm, d_4^{20} 1.0465, n_D^{20} 1.4825.

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1/2 031 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--SPECTRAL STUDY OF THE ELECTRON DONOR CAPACITY OF TRIETHYL PHOSPHITE
AS A METHOD FOR EVALUATING THE PURITY OF PHOSPHITES -U-
AUTHOR--(05)-EPSHTEYN, L.M., NOVIKOVA, Z.S., ASHKINADZE, L.D., RUBASHEVA,
L.M., KAZITSYNA, L.A.
COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (3), 689-90

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ELECTRON DONOR, ALKYL PHOSPHITE, CHEMICAL PURITY, HYDROGEN
BONDING, COMPLEX COMPOUND, ABSORPTION BAND SPECTRUM, ETHANOL,
FLUORINATED ORGANIC COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3001/0082

STEP NO--UR/0062770/000/003/0689/0690

CIRC ACCESSION NO--AP0125916

UNCLASSIFIED

2/2 031

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0125916

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SINCE THE FORMATION OF H BOND BETWEEN ETOH AND P(OET) SUB3 RESULTS IN A H COMPLEX WHICH GIVES AN ABSORPTION BAND AT 3560 CM PRIME NEGATIVE1 WITH A SHOULDER AT 3480 CM PRIME NEGATIVE1 (E., ET AL., 1969) THE APPEARANCE OF THE LATTER HAD BEEN SUGGESTED TO BE THE RESULT OF 2 TYPES OF SUCH COMPLEXES. HOWEVER SUCH A SHOULDER MAY BE CAUSED BY A SMALL ADMIXT. OF ET SUB3 PO SUB4 WHICH CANNOT BE DETECTED BY THE SPECTRAL METHOD DIRECTLY. CAREFULLY PURIFIED P(OET) SUB3 AND ETOH GAVE AN IR SPECTRUM IN WHICH THE HO BAND WAS SYMMETRIC, BUT A BRIEF CONTACT WITH AIR RESULTED IN SHOULDER FORMATION AT 3460 CM PRIME NEGATIVE1 AT THE FREQUENCY AT WHICH THE COMPLEX OF ETOH AND ET SUB3 PO SUB4 HAS A BAND. TO EVALUATE THE SENSITIVITY OF THIS BAND THE SUITABLE CALIBRATION RUNS WERE MADE AND ET SUB3 PO SUB4 AT 0.07 MOLES-L. RESULTS IN THE SHOULDER OF THE BAND AT 1280 CM PRIME NEGATIVE1 WHILE AT 0.01-0.02 MOLES-L. THIS CAN NO LONGER BE OBSERVED, BUT THE ASYMMETRY OF THE 3460 CM PRIME NEGATIVE1 BAND IS STILL CLEARLY VISIBLE. CF SUB3 CH SUB2 OH IN PLACE OF ETOH ALLOWED SPECTROSCOPIC DETECTION OF ET SUB3 PO SUB4 EVEN AT 0.005 MOLES-L. THE INTEGRAL INTENSITY OF THE BAND OF THE COMPLEX OF ETOH WITH P(OET) SUB3 (3 TIMES 10 PRIME4 L. M PRIME NEGATIVE1 CM PRIME NEGATIVE1) WAS SMALLER THAN THAT OF ETOH WITH HC(OET) SUB3 (3.5 TIMES 10 PRIME4); CF SUB3 CH SUB2 OH GAVE SIMILAR RESULTS. THUS P(OET) SUB3 IS LESSEFFECTIVE ELECTRON DONOR IN RESPECT TO ALCS. THAN IS HC(OET) SUB3. FACILITY: INST. ELEMENTOORG. SOEDIN, MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC: 543.42-547.241

EPSHTEYN, L.M., NOVIKOVA, Z.S., ASHKINADZE, L.D., RUBASHEVA, L.M., KAZITSYNA, L.A.,
Institute of Organo Elemental Compounds, Moscow, Academy of Sciences USSR

"Spectral Investigation of the Electron-Donor Capacity of Triethyl Phosphite as a
Method of Evaluating the Purity of Phosphites"

Moscow, Izvestiya Akademii Nauk SSSR: Seriya Khimicheskaya, No 3, Mar 70, pp 689-690

Abstract: When ethanol forms a hydrogen bond with triethylphosphite, the absorption band for the H-complex (3560 cm^{-1}) has a secondary peak at about 3480 cm^{-1} . It was found that the asymmetry of the absorption band is due to a slight admixture of triethylphosphate. The amount of impurity was determined by studying the ternary triethylphosphite-triethyl-phosphate-ethanol system. The spectral method used for quantitative determination can detect a phosphate impurity of the order of 0.005 M/l in the H-complex. A study of the electron-donor capacity of triethylphosphite and its carbon analog orthoformic ether as compared with H-acids showed that the integral intensity of the band of the H-complex of ethanol with triethylphosphite is less than with orthoformic ether. The frequency shifts as compared with ν_{OH} of free ethanol are 82 and 87 cm^{-1} respectively. A similar pattern is observed when a stronger proton donor -- trifluoroethanol -- is used. The reasons for the reduction in the proton acceptor properties of triethylphosphite as compared with its carbon analog are now being investigated.

1/1

1/2 049 UNCLASSIFIED PROCESSING DATE--02JCT70
TITLE--SUPRAMOLECULAR STRUCTURE OF BLOCK POLYSTYRENE AND POLYCARBONATE -U-
AUTHOR--(05)-GERASIMOV, V.I., KARGIN, V.A., NOVIKOV, N.P., SALUYENYA, S.S.,
CHERNYAVSKAYA, O.A.
COUNTRY OF INFO--USSR
SOURCE--VYSOKOMOL. SOEDIN., SER. A 1970, 12(2) 382-7
DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY, MATERIALS, PHYSICS

TOPIC TAGS--MOLECULAR STRUCTURE, LASER RADIATION, POLYSTYRENE RESIN,
POLYCARBONATE, X RAY DIFFRACTION, ELECTRON MICROSCOPY, IR SPECTROSCOPY,
POLYMER STRUCTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1989/0253

STEP NO--UR/0459/70/012/002/0382/0387

CIRC ACCESSION NO--AP0106909

UNCLASSIFIED

2/2 049

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0106909

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. LASER IRRADN. OF RELATIVELY LOW ENERGY CAUSES THE SEPN. BETWEEN MOL. AGGREGATES (N., 1968); HIGHER ENERGY LASER BEAMS PRODUCE MICROFISSURES. X RAY DIFFRACTOMETRY, ELECTRON MICROSCOPY, AND IR SPECTROSCOPY OF BLOCK POLYSTYRENE (I) AND POLYCARBONATE (II) SAMPLES BEFORE AND AFTER LASER IRRADN. SHOWED THAT BOTH ARE AMORPHOUS; I HAS A GLOBULAR AND II A FIBRILLAR STRUCTURE.

UNCLASSIFIED

1/2 015 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--ADSORPTION OF COPPER AMMONIA COMPLEXES BY SULFOSTYRENE ION
EXCHANGERS -U-
AUTHOR-(02)-NOVITSKAYA, L.V., SOLDATOV, V.S.
COUNTRY OF INFO--USSR
SOURCE--VESTSI AKAD. NAUK BELARUS. SSR, SER. KHIM. NAUK 1970, (1), 109-11
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--ADSORPTION, COPPER COMPLEX, AMMONIA, ION EXCHANGE RESIN/(U)KUZ
ION EXCHANGE RESIN
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1997/0436 STEP NO--UR/0419/70/000/001/0109/0111
CIRC ACCESSION NO--AP0119372
UNCLASSIFIED

2/2 015

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119372

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PROCESS OF ION EXCHANGE OF CU PRIME2 POSITIVE NH SUB4 OH SOLNS. (0.1 N CU PRIME2 POSITIVE AND CU PRIME2 POSITIVE-NH SUB4 OH MOLAR RATIO WAS 6, 7, 8, 9, AND 10) ON DOWEX 50 TIMES 1, TIMES 4, TIMES 8, AND TIMES 12, AND KU-2 TIMES 25 IONITES WITH EXCHANGE CAPACITIES IN H PRIME POSITIVE FORM OF 5.11, 5.06, 4.98, 5.02, AND 4.60 MG EQUIV.-G RESP. WAS EXAMD. IN THE ADSORPTION OF COPPER AMMONIA COMPLEXES BY THE H PRIME POSITIVE FORM OF IONITES, PPTN. OF CU (OH)SUB2 OCCURRED (NH SUB3 CONC. IN SOLN. WAS HIGHER THAN IN THE IONITE). DURING ABSORPTION OF NH SUB3 SOLNS. BY IONITES IN THE CU PRIME2 POSITIVE FORM THE SATN. OF (CU(NH SUB3)SUB2)PRIME2 POSITIVE IN THE IONITE OCCURRED AT 0.112 M NH SUB3 CONC. FACILITY: INST. OBSSHCH. NEORG. KHIM., MINSK, USSR.

UNCLASSIFIED

USSR

PRILEZHAYEVA, YE. N., et al., Doklady Akademii Nauk SSSR, Vol 194,
No 3, 1970, pp 727-730

from chromatographically pure primary n-octyl and n-decyl mercaptans, were compared with the properties of Alvisone-K, obtained from mercaptan concentrate extracted from polysulfide petroleum of the Ishimbay type, as well as Alvisone 8-10 obtained from a mixture of synthetic alcohols C₈-C₁₀ (supplied by YU. B. KAGAN and S. M. LOKTEV). Alvisone-K was found to be only slightly inferior to Alvisones 8 and 8-10 in herbicidal activity. Data were obtained on the dosage of "Alvisone" herbicides under field conditions, based on three-year field plot tests conducted at the Pushkin base of the All-Union Institute of Plant Protection (Leningradskaya Oblast), as well as by the Chair of Agriculture of the Soil Biology Faculty of Moscow University (Moskovskaya Oblast).

The results indicate that Alvisone-K possesses a number of properties (e. g., low toxicity for warm-blooded animals, stability under storage) which make it promising for the control of annual di-

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USSR

PRILEZHAYEVA, YE. N., et al., Doklady Akademii Nauk SSSR, Vol 194,
No 3, 1970, pp 727-730

cotyledonous weeds in carrot plantings. Alvisone can be used as a contact herbicide as a supplement to soil preparations (of the propazine type etc.). The most convenient way of preparing these α, β -unsaturated sulfones is three-stage synthesis from mercaptans, either individual ones or mixtures thereof.

The authors thank T. YE. PIVOVAROVA, V. I. DRONOV, V. KH. SYUNDYUKOVA, T. S. PAPKO for taking part in the synthetic portion of the work, P. V. SABUROVA for taking part in the hothouse tests, A. V. ZAKORDONETS and YE. V. ARZAMASTSEV for determining the toxicity for warm-blooded animals, and Professor R. D. OBOLENTSEV and V. S. BURYI for their interest in the study.

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172 013 UNCLASSIFIED PROCESSING DATE--300C170
TITLE--DETERMINATION OF CREATINE KINASE IN ANIMAL SERUM -U-
AUTHOR--(03)-NOVIKOVA, N.V., TRANDOFILOVA, G.M., ZANIMONSKIY, YE.M.
COUNTRY OF INFO--USSR
SOURCE--LAB. DELO 1970, (2), 105-7
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--BLOOD SERUM, ENZYME ACTIVITY, COLORMETRIC ANALYSIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1998/0020

STEP NO--UR/9099/70/000/002/0105/0107

CIRC ACCESSION NO--AP0120720

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--30OCT70

2/2 013

CIRC ACCESSION NO--AP0120720
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. AN ADAPTATION OF A COLORIMETER TO
BE USED FOR THE DETN. OF CREATINE KINASE IN BLOOD SERUM IS DESCRIBED.
THE SENSITIVITY OF THE APP. WAS INCREASED BY INSTALLATION OF A
DIAPHRAGM WITH CENTRAL SECTION OF 3.5 MM INTO THE MEASURING CELL OF THE
APP.
FACILITY: FIZ. KHIM. LAB., KHAR'KOV, INST. ENDOKRINOL.
KHIM. GORMON., KHARKOV, USSR.

UNCLASSIFIED

1/2 033 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--EFFECT OF IRRADIATION OF THE DONOR ON THE FREQUENCY OF THE
APPEARANCE OF PROXIMAL NONSELECTIVE MARKERS U-
AUTHOR--(03)-NOVITSKAYA, M.A., TROITSKIY, N.A., BYLINSKIY, A.F.
COUNTRY OF INFO--USSR
SOURCE--VESTSI AKAD. NAVUK BELARUS. SSR, SER. BIYAL. NAVUK 1970, (2), 106-
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS, BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--NEUTRON IRRADIATION, CHROMOSOME, RADIATION BIOLOGIC EFFECT
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3007/0213 STEP NO--UR/0440/70/000/002/0106/0108
CIRC ACCESSION NO--AP0135709
UNCLASSIFIED

2/2 Q33

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0135709
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. IRRADN. OF THE DONOR WITH 1 MEV NEUTRONS CREATES A SHARP INCREASE IN THE NO. OF RECOMBINED PAIRS OF THE SELECTIVE MARKER ARG PLUS SM. THE PERCENTAGE OF RECOMBINED PAIRS WAS 2.6 TIMES GREATER THAN IN THE CASE WHEN A NONIRRADIATED DONOR WAS TAKEN FOR CROSSING. EXPTS. SHOWED THAT THE INCREASE IN RECOMBINED PAIRS CANNOT, HOWEVER, BE EXPLAINED MERELY BY THE INCREASE IN EFFECTIVE PAIRS. IRRADN. OF THE DONOR WITH NEUTRONS PROBABLY BRINGS ABOUT A CHANGE IN ITS CHROMOSOMES WHICH, IN TURN, INCREASES THE FREQUENCY OF RECOMBINATION IN THE MEROZYGOTE. IT CAN BE ASSUMED THAT IRRADN. WITH NEUTRONS INDUCES AT LEAST 2 TYPES OF DONOR CHROMOSOME DAMAGE. FACILITY: INST. GENET. TSITOL., MINSK, USSR.

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--30OCT70

1/2 016

TITLE--GEOCHEMICAL FEATURES OF THE PETROLEUM OF THE SHATILKOVSKII REGION

-U-

AUTHOR--(04)-SEMYACHKO, R.YA., AGABEKOVA, L.A., NOVITSKAYA, T.A.,

NIKULENKO, YE.F.
COUNTRY OF INFO--USSR

SOURCE--DOKL. AKAD. NAUK BELORUSS. SSR 1970, 14(3), 261-3

DATE PUBLISHED-----70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY, MATERIALS, PROPULSION AND
FUELS, CHEMISTRY
TOPIC TAGS--GEOCHEMISTRY, GEOGRAPHIC LOCATION, AROMATIC HYDROCARBON,
METHANE, PETROLEUM PROSPECTING, GASOLINE, CHEMICAL COMPOSITION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1998/2056

STEP NO--UR/0250/70/014/003/0261/0263

CIRC ACCESSION NO--AT0122285

UNCLASSIFIED

2/2 016

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AT0122285

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A SMALL OIL FLOW (0.5 M PRIME3 -DAY) WAS OBTAINED FROM THE 2993-3300 M INTERVAL FROM A HOLE DRILLED IN THE TITLE AREA. THE OIL WAS OF LOW RESIN AND LOW S PARAFFIN TYPE WITH VERY SMALL CONTENT OF ASPHALTENES AND N. ITS LOW COKING ABILITY INDICATED THE PREDOMINANCE OF PARAFFIN HYDROCARBONS. THE PETROLEUM CONTAINED ALSO LITTLE OF ACID PRODUCTS AND A SMALL AMT. OF MECH. IMPURITIES. THE GASOLINE FRACTION WAS CHARACTERIZED BY HIGH SATN. CONTENT OF PARAFFIN HYDROCARBONS WAS ON THE AV. 70PERCENT. AN INCREASE IN CONTENT OF AROMATIC HYDROCARBONS, REACHING MAX. (15.5PERCENT) IN THE 175-200DEGREES FRACTION, WAS OBSD. DURING INCREASE IN TEMP. OF BOILING. INCREASE IN CONTENT OF S WAS OBSD. SIMULTANEOUSLY WITH INCREASE IN AMT. OF AROMATIC HYDROCARBONS. THIS SUBSTANTIATED THE FACT THAT GASOLINES OF METAMORPHOSED OILS, RICH IN CH SUB4 HYDROCARBONS, CONTAIN LARGE AMT. OF AROMATIC COMPOS. THE 60-95 AND 150-75DEGREES FRACTIONS HAD THE MAX. CONTENTS OF NAPHTHENE HYDROCARBONS. FACILITY: INST. GEOL. NAUK, MINSK, USSR.

UNCLASSIFIED

1/2 047
TITLE--USE OF LASERS IN STUDYING PROCESSES OF ATMOSPHERIC DIFFUSION -U-
AUTHOR--NOVITSKIY, B.F.
COUNTRY OF INFO--USSR
SOURCE--TRUDY GL. GEOFIZ. OBSERVAT., NO 238, PP 64-69
REFERENCE--REFERATIVNYY ZHURNAL, GEOFIZIKA, SVODNYY TOM, NO 5, 1970, 58-98
DATE PUBLISHED--70

SUBJECT AREAS--ATMOSPHERIC SCIENCES, PHYSICS
TOPIC TAGS--LASER, ATMOSPHERIC DIFFUSION, SMOKE, AEROSOL, HOLOGRAPHY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO--FD70/605031/B10 STEP NO--UR/0000/70/000/238/0064/0069

CIRC ACCESSION NO--AR0141904

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--11DEC70

2/2 047

CIRC ACCESSION NO--AR0141904

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THIS PAPER EXAMINES THE POSSIBILITY OF USING LASERS IN STUDYING PROCESSES OF ATMOSPHERIC DIFFUSION, ACCOMPANIED BY A BLOCK DIAGRAM OF A LASER FOR INVESTIGATING THE THREE DIMENSIONAL STRUCTURE OF A SMOKE PLUME AND DESCRIPTION OF A HOLOGRAPHIC APPARATUS EMPLOYED FOR STUDYING THE TRAPPING OF A SOLID ADMIXTURE BY A WATER AEROSOL. BIBLIOGRAPHY OF SIX ITEMS.

UNCLASSIFIED

1/2 013 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--ORGANOSILICON POLYISOCYANATES -U-
AUTHOR--(05)-BORODAVCHENKO, YE.S., SOBOLEVSKIY, M.V., NOVITSKIY, E.G.,
SEVERNYY, V.V., SHEUDYAKOV, V.D.
COUNTRY OF INFO--USSR
SOURCE--U.S.S.R. 263,880
REFERENCE--UTKRYTIYA, IZBERET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,
DATE PUBLISHED--10FEB70
SUBJECT AREAS--MATERIALS, CHEMISTRY
TOPIC TAGS--ORGANOSILICON COMPOUND, ORGANIC ISOCYANATE, CHEMICAL PATENT,
SILOXANE, ORGANIC SYNTHESIS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3002/L-64 STEP NO--UR/0482/70/000/000/0000/0000
CIRC ACCESSION NO--AA0124863
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--13NOV70

2/2 013
CIRC ACCESSION NO--AA0128053

ABSTRACT/EXTRACT--(U) GP-G- ABSTRACT. ORGANOSILICON POLYISOCYANATES ARE
PREPD. BY TREATING POLY(ORGANOSILOXANES) CONTG. AN OH GROUP WITH CLME
SUB2 SI(CH SUB2) SUB3 NCO IN THE PRESENCE OF AN HCL ACCEPTOR, E.G.
PYRIDINE.

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